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Date of Deposit: July 18, 2007

Typed Name of Person Mailing Paper or Fee: John S. Reid

Signature: John S. Reid

PATENT APPLICATION
Docket No.: 10017364-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

In re application of:

Inventor(s): Curtis Gregory Kelsay
Serial No.: 10/053,989
Filed: January 19, 2002
Title: Optical Scanning Apparatus Having Self-Propelled Light
Bar Assembly
Art Unit: 2625
Examiner: Worku, Negussie
Confirmation No.: 5126

Mail Stop APPEAL BRIEF – PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

SIR OR MADAM:

This communication is the Appeal Brief in this application with respect to the Notice of Appeal filed on June 18, 2007. This Appeal Brief is being filed under the provisions of 37 C.F.R. § 41.37. The filing fee for filing this Appeal Brief, as set forth in 37 C.F.R. § 41.20(b)(2), is included herewith as indicated on the attached Transmittal of Appeal Brief.

(Continued on next page.)

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Docket No. 10017364-1
Appeal Brief



HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10017364-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): **Curtis Gregory Kelsay**

Confirmation No.:

Application No.: **10/053,989**

Examiner: **Worku, Negussie**

Filing Date: **19 JAN. 2002**

Group Art Unit: **2625**

Title: Optical Scanning Apparatus Having Self-Propelled Light Bar Assembly

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Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450**

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on June 18, 2007.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

(a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

1st Month
\$120

2nd Month
\$450

3rd Month
\$1020

4th Month
\$1590

The extension fee has already been filed in this application.

(b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 500. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

A duplicate copy of this transmittal letter is enclosed.

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Date of facsimile:

Typed Name: **John S. Reid**

Signature: John S. Reid

Respectfully submitted,

Curtis Gregory Kelsay

By John S. Reid

John S. Reid

Attorney/Agent for Applicant(s)

Reg No. : **36,369**

Date : **July 18, 2007**

Telephone : **(509) 534-5789**

1. Real Party In Interest:

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

2. Related Appeals and Interferences:

10 There are no other appeals or interferences known to appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

3. Status of the Claims:

15 The following list provides the status of all the claims in the application:

Claims 1-7: rejected – currently on appeal;

Claim 8: cancelled;

Claims 9-25: rejected – currently on appeal;

Claims 26-28: cancelled;

20 Claims 29-32: rejected – currently on appeal.

4. Status of Amendments:

No amendments have been filed or entered subsequent to the final action.

25 5. Summary of Claimed Subject Matter:

The summary corresponds to independent claims 1, 11, 16, 23, and 29, which are the independent claims on appeal. Discussions about elements and recitations can be found at least at the cited locations in the specification and drawings.

30 (Continued on next page.)

Claim 1:

With respect to claim 1, which is the first independent claim on appeal, an optical scanning apparatus (100, 100A, 200, 300) includes a scanner body (102, 102A, 202, 302) and a self-propelled light bar assembly (110, 110A, 210, 310) supported within the scanner body, wherein the light bar assembly is movable relative to the scanner body. The term "self-propelled light bar assembly" means that the light bar assembly contains the drive source (i.e., the motive source which drives the light bar assembly relative to the scanner body). This is to be distinguished from the prior art scanner apparatus, wherein the motive source for the light bar is not supported by, or contained within, the light bar and its immediately supporting structure. (See specification at page 7, line 19, through page 16, line 32, and Figures 1-11.)

Claim 11:

With respect to claim 11, which is the second independent claim on appeal, an optical scanning apparatus (100, 100A, 200, 300) includes a scanner body (102, 102A, 202, 302) and a light bar assembly (110, 110A, 210, 310) supported within the scanner body, the light bar assembly comprising a drive motor (142) and a light source (118), the light bar assembly configured to move the drive motor and the light source together relative to the scanner body. (See specification at page 7, line 19, through page 16, line 32, and Figures 1-11.)

Claim 16:

With respect to claim 16, which is the third independent claim on appeal, an optical scanning apparatus (200) includes a scanner body (210), and a magnet-track portion (254) of a linear electric motor fixedly supported within the scanner body. The apparatus also includes a light bar assembly (210) that includes a slider portion (232) of a linear electric motor. Additionally, the light bar assembly is supported in the scanner body to place the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion by interaction of the magnet track portion with the slider portion. (See specification at page 13, line 25 through page 16, line 32, and Figures 7-8.)

5 Claim 23:

With respect to claim 23, which is the fourth independent claim on appeal, a method of moving a light bar assembly (110, 110A, 210, 310) within a scanner body (102, 102A, 202, 302) of an optical scanning apparatus (100, 100A, 200, 300) is described that includes providing a stationary track (154, 154A, 254, 354). The method further includes providing a motive source (142, 232) supported by the light bar assembly, and moving the light bar assembly along the stationary track using the motive source. (See specification at page 16, line 33 through page 17, line 17.)

10 Claim 29:

With respect to claim 29, which is the fifth independent claim on appeal, a scanner (110, 110A, 210, 310) includes a light (118, 218, 318) configured to move linearly within the scanner, and a motor (142, 232) in fixed association with the light such that the light and the motor are moved together.

15

6. Grounds of Rejection to be Reviewed on Appeal:

(A). Whether claims 1-7 and 9-15 are anticipated under 35 U.S.C. 102(b) by U.S. Patent No. 5,873,308 to Taira.

20 (B). Whether claims 16-19, 22-25 and 29-32 are unpatentable under 35 U.S.C. 103(a) over Taira in view of U.S. Patent No. 6,753,534 to Novak et al., and whether claims 20 and 21 are unpatentable over Taira in view of Novak as applied to claims 16-19, 22-25 and 29-32, and further in view of U.S. Patent No. 6,961,154 to Sugano.

25 7. Argument:

(A) Rejection of Claims Under 35 U.S.C. 102

According to the United States Patent and Trademark Office (the "USPTO"), a claim is anticipated only if each and every element as set forth in the claim is found, 30 either expressly or inherently described, in a single prior art reference, and that the identical invention must be shown in as complete detail as is contained in the claim. (MPEP 2131.)

Claims 1-7, 9 and 10

The Appellant argues against the rejections of claims 1-7, 9 and 10 under 35 U.S.C. 102 as being anticipated by Taira on the grounds that each and every element as set forth in those claims is not found, either expressly or inherently described, in the cited prior art reference and/or that the identical invention is not shown by the cited reference in as complete detail as is contained in the claims.

5 Each of claims 1-7, 9 and 10 contains the following limitation:

a self-propelled light bar assembly supported within the scanner body.

10 (Emphasis added.)

The Appellant has expressly defined the term “self-propelled light bar assembly” in the Appellant’s specification at page 9, line 21 through page 10, line 5, which states (in part):

15 *The present invention provides for an optical scanning apparatus having a self-propelled light bar assembly, as will be more fully described below. By “self-propelled” I mean that the light bar assembly contains the drive source (i.e., the motive source which drives the light bar assembly relative to the scanner body). This is to be distinguished from the prior art scanner apparatus, wherein the motive source for the light bar is not supported by, or contained within, the light bar and its immediately supporting structure.* (Emphasis added.)

20 In view of the above, the Appellant contends that in order for Taira to anticipate claims 1-7, 9 and 10, Taira must expressly or inherently describe an optical scanning apparatus having a light bar assembly, and wherein the light bar assembly contains the motive source which drives the light bar assembly.

25 Taira does not expressly or inherently describe an optical scanning apparatus having a light bar assembly that contains the motive source which drives the light bar assembly, as is explained below.

(Continued on next page.)

Taira states the following:

5 *FIG. 1 is a cross sectional view showing the basic structure of a stamp face forming device of this embodiment. As illustrated in FIG. 1, according to a stamp face forming device (5) ... a light source (20) [is] mounted to a movable unit (30). (Taira, col. 4, lines 57-63.) The manuscript (2) ... [is] placed above the support glass (50) ... and the cover (54) is closed. (Taira, col. 5, lines 62-65.) As illustrated in FIG. 1 the movable unit (30) is moved along the face of the manuscript (2) in an arrow mark (A) direction (Taira, col. 6, lines 9-11.)*

10 The above passage from Taira, along with the associated drawing figure(s), teach that the light source (20) is fixed to the movable unit (30), and that the movable unit (30) is movable relative to both the support glass (50) and the cover (54).

15 Taira also states the following:

20 *FIG. 3 is a perspective view showing the stamp face forming device (5). As shown in FIG. 3, the stamp face forming device (5) includes a case (52) and a cover (54) supported by a hinge portion (99) openable with respect to the case (52). An opening (58) is formed in the case (52). The support glass (50) covering the opening (58) is installed on the upper face of the case (52). (Taira, col. 4, line 66 through col. 5, line 6.)*

25 This passage from Taira, along with the associated drawing figure(s), teach that the case (52) serves as an outer enclosure for the device (5) and that the case also at least partially serves as a support structure for some of the components of the device (5), including the cover (54) and the support glass (50). Accordingly, it can be concluded with complete certainty that the case (52) and the support glass (50) are stationary, while the light source (20) and the movable unit (30) are movable relative to the case (52) and the support glass (50).

Taira also states the following:

Fig. 4 is a perspective view showing the movable unit (30).

According to the movable unit (30), a linear light source (20), for example, a halogen lamp, is mounted in a housing (32). (Taira, col. 5, lines 17-22.)

Two guide bars (34) extend at the lower portion of the movable unit (30) in a direction orthogonal to the longitudinal direction of the linear light source (20). Also, a rack (38) in parallel with the guide bars (34) is fixed to the housing (32) A pinion (39) meshes with the rack (38). The pinion (39) is fixed to an output shaft of a motor (44) installed in the case (52). (Taira, col. 5, lines 50-56.)

The above passages from Taira, along with the associated drawing figure(s), teach that the light source (20) is mounted in the housing (32), and that both the light source and the housing are fixed to the movable unit (30), and that the rack (38) is in turn fixed to the housing (32), and that pinion (39) meshes with the rack (38), and that the pinion (39) is fixed to the output shaft of the motor (44) and that the motor (44) is supported on the case (52).

Accordingly, it can be concluded with complete certainty that the rack (38) is fixed to the movable unit (30) and that the rack therefore moves with the movable unit, and that the motor (44) is fixed to the case (52), and that the motor does not move relative to the case. Therefore, the motor (44) does not move with the movable unit (30). In other words, Taira teaches that the motor (44) is stationary and does not move with the light source (20), nor is the motor supported on the light source or contained within any portion of the light source.

The Appellant contends that, in view of the discussion above, Taira clearly does not teach a self-propelled light bar assembly. Rather, by contrast, Taira clearly teaches a light bar assembly that is not self-propelled. That is, Taira expressly teaches that the motor (44) is stationary relative to the light bar. Therefore, the light bar assembly taught by Taira is not self-propelled because the means (motor 44) for propelling the light bar assembly is not contained within the light bar assembly, but is instead supported on a stationary case 52, which is external to the light bar assembly.

Thus, Taira does not anticipate any of claims 1-7, 9 and 10 because each and every element as set forth in those claims is not found, either expressly or inherently described, in Taira. Specifically, Taira does not disclose a self-propelled light bar assembly, as is required by each of claims 1-7, 9 and 10.

5

Claims 11-15

The Appellant argues against the rejections of claims 11-15 under 35 U.S.C. 102 as being anticipated by Taira on the grounds that each and every element as set forth in those claims is not found, either expressly or inherently described, in the cited prior art reference and that the identical invention is not shown by the cited reference in as complete detail as is contained in the claims.

10 Each of claims 11-15 contains the following limitations:

15 a light bar assembly supported within the scanner body, the light bar assembly comprising a drive motor and a light source, the light bar assembly configured to move the drive motor and the light source together.

20 As the Appellant explains in the above discussion with respect to claims 1-7, 9 and 10, Taira does not teach a light bar assembly supported within the scanner body, the light bar assembly comprising a drive motor and a light source, the light bar assembly configured to move the drive motor and the light source together, as is required by each of claims 11-15.

25 The Appellant contends that if a light bar assembly comprises a drive motor and a light source, then it is inherent that the drive motor and the light source are in fixed relation to one another. However, as is explained above, Taira teaches that the motor (44) is mounted to the case (52) and is therefore stationary relative to the case, while the light source (20) is movable relative to the case. That is, Taira teaches that the motor and the light source are movable relative to one another, and that the light bar assembly does not comprise the motor or any part of the motor. In other words, Taira 30 expressly describes an apparatus that is clearly different from what is required by each of claims 11-15. Specifically, Taira does not teach an apparatus in which "the light bar assembly [is] configured to move the drive motor and the light source together", as is required by each of claims 11-15.

Therefore, Taira does not anticipate claim 11 because each and every element as set forth in claim 11 is not found, either expressly or inherently described, in Taira, and/or because Taira does not show the identical invention in as complete detail as is contained in the claims.

5

(B) Rejection of Claims Under 35 U.S.C. 103

According to the USPTO, establishment of a *prima facie* case of obviousness requires: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to 10 modify the reference or to combine the reference teachings; 2) there must be a reasonable expectation of success; and, 3) the prior art references, when combined, must teach or suggest all the claim limitations. (MPEP 2142.)

Claims 16-22

15 The rejection of each of claims 16-22 depends at least upon the combination of Taira and Novak.

The Appellant argues against the rejections of claims 16-19 and 22 under 35 U.S.C. 103 on the grounds that the Examiner has not established that there is sufficient suggestion or motivation, either in the references themselves or in the knowledge 20 generally available to one of ordinary skill in the art, to combine the teachings of Taira with those of Novak so as to result in the claimed invention, and because there is no reasonable expectation of success in making such a combination.

The Examiner contends that Taira together with Novak teach or suggest all the limitations of claim 16 and that it would have been obvious to one of ordinary skill in the 25 art at the time the invention was made to have modified the apparatus of Taira to include the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion.

The Appellant asserts that, in view of the Examiner's reasoning for the rejection of the claims under 35 U.S.C. 103, it is important to establish what is taught by the 30 references. Taira teaches a stamp making assembly, of which some of the relevant components and the like are discussed herein above with respect to the rejections of claims under 35 U.S.C. 102.

Novak teaches a positioning stage for use with an electron beam lithography system. More specifically, the device taught by Novak is intended to precisely move and position a semiconductor device during its manufacture. Such semiconductor devices can include semiconductor circuits and the like. The device taught by Novak is intended to precisely position the semiconductor device as an electron beam is employed to produce various features on the semiconductor device.

According to Novak, problems associated with conventional positioning stages include lack of shielding for the magnetic fields created by moving motors and other magnetic components, which can cause shifting of the electron beam, further resulting in misalignment of the pattern being produced on the article of manufacture. (Novak, col. 1, line 62 through col. 2, line 6.) Novak attempts to correct such problems associated with conventional positioning stages by introducing shielding to the magnet tracks and by minimizing movement of magnetic components. (Novak, col. 2, lines 43-45, col. 3, line 50 through col. 4, line 28.)

The Appellant notes that the problem confronted by the inventor must be considered in determining whether it would have been obvious to combine references in order to solve that problem. (Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ 2d 1321 (Fed. Cir. 1990).) More precisely, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. (In re Rouffet, 149 F.3d 1350, 47 USPQ 2d 1453 (Fed. Cir. 1998).)

Accordingly, it is important in resolving the question of obviousness to identify and/or understand the problem confronted by the inventor. The problem confronted by the Appellant is found in the Appellant's specification starting at page 4, line 10 through page 5, line 11. Specifically, the problem confronted by the Appellant is how to design a light bar assembly so as to minimize complexity, cost and size, while also increasing reliability and performance.

The Examiner provides the following reasoning as to why there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings to result in the claimed invention. The Examiner states at page 8 of the final action:

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons:

(a) it would have allowed a user to shield the magnetic fields created by the moving motors or other moving magnetic permeable components from the electron beam lithography system (col. 1, lines 62-68); (b) it would have allowed users to avoid a shift of the electron beam by a magnetic field and cause misalignment of the pattern on the article, as discussed by Novak et al. (col. 1, line 62 through col. 2, line 5.)

5

10

The Appellant contends that the Examiner's reasoning is deficient at least because it is apparent that the Examiner has not considered the problem faced by the Appellant, as is required. Moreover, the Appellant contends that it is also apparent that the Examiner has not shown any reason why the skilled artisan, confronted with the 15 same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed, as is also required.

Specifically, the Examiner contends that the reason the skilled artisan would have selected relevant portions from Novak and used them to modify the apparatus of 20 Taira is because by doing so it would have reduced the effects of magnetic fields on the operation of an electron beam lithography system, which would have minimized misalignment of the pattern produced on an article of manufacture.

However, magnetic fields, the shielding thereof, as well as electron beams, 25 electron beam lithography systems, and the operation thereof, have absolutely nothing to do whatsoever with the problem confronted by the Appellant. In other words, the skilled artisan, when confronted with the same problem faced by the Appellant (regarding light sources in a scanner) would not have given a single iota of thought to reducing the affect of magnetic fields on the operation of an electron beam lithography system. There is simply no evidence that magnetic fields have any adverse affects on 30 the light issuing from a light source in an optical scanning apparatus, and thus one would have no motivation at all to consider Novak when designing an optical scanning apparatus.

The Appellant notes that the USPTO also requires the Examiner to present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. (MPEP 2142.) In other words, “there must be some logical reason apparent from 5 positive, concrete evidence that justifies a combination of primary and secondary references.” (In re Laskowski, 871 F.2d 115, 10 USPQ 2d 1397 (Fed. Cir. 1989).) The Appellant contends that the Examiner’s reasoning is not logical because shielding of magnetic fields and the operation of electron beams have nothing to do with the problem confronted by the Appellant (i.e., minimizing complexity, cost and size of an 10 optical scanning apparatus, while also increasing reliability and performance).

Additionally, the Appellant notes that the reasoning provided by the Examiner is simply a restatement of the problem confronted by, and subsequently apparently solved, by Novak alone. That is, what the Examiner incorrectly asserts is a reason for the artisan to combine the teachings of Taira and Novak is, in fact, merely a reason for 15 the artisan to simply build and employ the apparatus of Novak only, without any consideration of any other teachings. This is because Novak apparently contains everything the artisan would need to address the problem of preventing shift of an electron beam from magnetic fields created by a support table apparatus. In other words, the artisan would not incorporate the teachings of Taira because Taira has 20 nothing to do with shielding magnetic fields and/or with anything remotely relating to electron beam lithography systems. Accordingly, by following the Examiner’s reasoning, the skilled artisan would have no expectations of success in considering the teachings of Taira and no more expectations of success in combining the teachings of Taira with those of Novak.

25 The Appellant notes further that prior art must suggest the desirability of the combination of references. (MPEP 2143.01.) The Appellant contends that there is no evidence that the prior art suggests the desirability of combining the teachings of Taira with those of Novak to result in the claimed combination.

Accordingly, the Appellant contends that none of claims 16-22 are obvious at 30 least because the Examiner has failed to produce the requisite positive, concrete evidence of any logical reason existing in the prior art showing that the skilled artisan, confronted with the same problems as the inventor, and with no knowledge of the claimed invention, would find it desirable to select the elements from the cited prior art

references for combination in the manner claimed, and which would compel a conclusion of obviousness.

Claims 23-25

5 The rejection of each of claims 23-25 depends upon the combination of Taira and Novak.

The Appellant contends that none of claims 23-25 is obvious because there is no suggestion or motivation to combine the teachings of Taira and Novak, and because the references do not teach or suggest all the claim limitations, as is required.

10 In regard to the suggestion or motivation to combine the teachings of Taira with those of Novak, the Examiner states the following at page 12 of the final action:

15 It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teachings of Novak et al., because of the following reasons: (a) it would have allowed users to reduce a vibration within the scanner body that might have affected the distribution of light over the object to be scanned; and (b) it would have helped users to avoid a shift of the electron beam by magnetic fields that cause misalignment of the 20 pattern on the article, as discussed by Novak et al., in col. 1, lines 62-68.

The Appellant contends that the Examiner has not considered the problem faced by the Appellant, as is required, and as is explained herein above with respect to claims 16-22. That is, as is also explained herein above with respect to claims 16-22, the problem faced by the Appellant is how to design a light bar assembly so as to minimize complexity, cost and size, while also increasing reliability and performance. Thus, the problem faced by the Appellant has nothing to do with reducing a vibration within the scanner body, nor with avoiding a shift of an electron beam by magnetic fields. Moreover, the Examiner has not provided any evidence of any problem relating to a vibration within the scanner body, nor has the Examiner provided any evidence that such a problem is identified and/or addressed and/or solved by any of the references. Therefore, the Appellant contends that such a problem is totally irrelevant to the question of whether any of claims 23-25 are obvious.

Accordingly, the Appellant contends that none of claims 23-25 is obvious at least because the Examiner has failed to produce the requisite positive, concrete evidence of any logical reason existing in the prior art showing that the skilled artisan, confronted with the same problems as the inventor, and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed, and which would compel a conclusion of obviousness.

5 The Appellant notes that each of claims 23-25 contains at least the following limitations:

10 providing a motive source supported by the light bar assembly; and
moving the light bar assembly along the stationary track using the motive source.

15 The Examiner contends that these limitations are taught by Taira. However, as is explained in detail above with respect to the rejections of claims under 35 U.S.C. 102, Taira not only does not teach such elements, but actually teaches something quite different from such elements. The Appellant also contends that none of the other references teach these elements.

20 Accordingly, the Appellant contends that none of claims 23-25 is obvious at least because the references do not teach or suggest all the claim limitations, as is required.

Claims 29-32

The rejection of each of claims 29-32 depends upon the combination of Taira and Novak.

25 The Appellant contends that none of claims 29-32 is obvious because there is no suggestion or motivation to combine the teachings of Taira and Novak, and because the references do not teach or suggest all the claim limitations, as is required.

In regard to the suggestion or motivation to combine the teachings of Taira with those of Novak, the Examiner states the following at page 15 of the final action:

30 *It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teachings of Novak et al., because of the following reasons: (a) it would have allowed users to reduce a vibration within the*

scanner body that might have affected the distribution of light over the object to be scanned; and (b) it would have helped users to avoid a shift of the electron beam by magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al., in col. 1, lines 62-68.

5

The Appellant contends that the Examiner has not considered the problem faced by the Appellant, as is required, and as is explained herein above with respect to claims 16-22. That is, as is also explained herein above with respect to claims 16-22, the problem faced by the Appellant is how to design a light bar assembly so as to minimize complexity, cost and size, while also increasing reliability and performance. Thus, the problem faced by the Appellant has nothing to do with reducing a vibration within the scanner body, nor with avoiding a shift of an electron beam by magnetic fields. Moreover, the Examiner has not provided any evidence of any problem relating to a vibration within the scanner body, nor has the Examiner provided any evidence that such a problem is identified and/or addressed and/or solved by any of the references. Therefore, the Appellant contends that such a problem is totally irrelevant to the question of whether any of claims 29-32 are obvious.

Accordingly, the Appellant contends that none of claims 29-32 is obvious at least because the Examiner has failed to produce the requisite positive, concrete evidence of any logical reason existing in the prior art showing that the skilled artisan, confronted with the same problems as the inventor, and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed, and which would compel a conclusion of obviousness.

The Appellant notes that each of claims 29-32 contains at least the following limitations:

a motor in fixed association with the light source such that the light source and the motor are moved together.

The Examiner appears to contend that these limitations are taught by Taira, although it is not clear to the Appellant. Nevertheless, as is explained in detail above with respect to the rejections of claims under 35 U.S.C. 102, Taira not only does not teach such elements, but actually teaches something quite different from such

elements. The Appellant also contends that none of the other references teach these elements.

Accordingly, the Appellant contends that none of claims 29-32 is obvious at least because the references do not teach or suggest all the claim limitations, as is required.

5 The Appellant contends that, in view of the foregoing, the information provided by the examiner in support of the obviousness rejections of the respective claims does not compel a conclusion that the claims are unpatentable, and that the Examiner has therefore not established a *prima facie* case of obviousness.

10

Summary

The Appellant respectfully requests that the Board overturn the final rejections of each of claims 1-7, 9-25 and 29-32, and requests that those claims be allowed.

Dated this 18th day of July, 2007.

15

Respectfully submitted,
Curtis Gregory Kelsay (Appellant)

20 by


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Docket No. 10017364-1
Appeal Brief

8. Claims Appendix:

Claim 1. An optical scanning apparatus comprising:

a scanner body; and

5 a self-propelled light bar assembly supported within the scanner body.

Claim 2. The optical scanning apparatus of claim 1, and further comprising a platen supported by the scanner body, and wherein the self-propelled light bar assembly comprises a drive wheel in contact with a drive track defined on the platen to allow the 10 drive wheel to drive the light bar assembly along the platen.

Claim 3. The optical scanning apparatus of claim 1, and further comprising a drive track supported within the scanner body, and wherein the self-propelled light bar assembly comprises a drive wheel in contact with the drive track to allow the drive wheel to propel 15 the light bar assembly with respect to the scanner body.

Claim 4. The optical scanning apparatus of claim 3, and further comprising a platen supported by the scanner body and having a first edge, and wherein the drive track is positioned adjacent to the first edge of the platen.

20 Claim 5. The optical scanning apparatus of claim 3, and wherein the light bar assembly comprises a biasing member configured to urge the drive wheel towards the drive track.

Claim 6. The optical scanning apparatus of claim 3, and wherein the light bar assembly 25 is supported within the scanner body by the drive track.

Claim 7. The optical scanning apparatus of claim 3, and wherein the drive wheel includes a rubberized outer portion, and the drive track has a non-smooth surface to allow the rubberized outer portion of the drive wheel to engage the drive track.

30 Claim 8 (canceled).

Claim 9. The optical scanning apparatus of claim 1, and wherein the light bar assembly comprises a rotary electric motor configured to propel the light bar assembly.

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Claim 10. The optical scanning apparatus of claim 1, and wherein the light bar assembly comprises a linear electric motor configured to propel the light bar assembly.

Claim 11. An optical scanning apparatus comprising:

5 a scanner body;
 a light bar assembly supported within the scanner body, the light bar assembly comprising a drive motor and a light source, the light bar assembly configured to move the drive motor and the light source together.

10 Claim 12. The optical scanning apparatus of claim 11, and wherein the scanner body defines an inside upper surface, and wherein the drive wheel contacts the inside upper surface of the scanner body.

15 Claim 13. The optical scanning apparatus of claim 12, and further comprising a support surface within the scanner body, upon which the light bar assembly is supported, and wherein the light bar assembly further comprises support wheels which rest on the support surface.

20 Claim 14. The optical scanning apparatus of claim 13, and wherein the light bar assembly further comprises biasing members which support the support wheels on the light bar assembly, and wherein the biasing members urge the support wheels against the support surface, and thereby urge the drive wheel against the drive surface.

25 Claim 15. The optical scanning apparatus of claim 11, and further comprising a position detecting system to allow the detection of the position of the light bar assembly with respect to the scanner body.

(Continued on next page.)

Claim 16. An optical scanning apparatus comprising:

- a scanner body;
- a magnet-track portion of a linear electric motor fixedly supported within the scanner body;
- 5 a light bar assembly comprising a slider portion of a linear electric motor; and wherein the light bar assembly is supported in the scanner body to place the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion.
- 10 Claim 17. The optical scanning apparatus of claim 16, and wherein the light bar assembly is suspended from the magnet-track portion.
- 15 Claim 18. The optical scanning apparatus of claim 16, and wherein the light bar assembly rests on top of the magnet-track portion.
- Claim 19. The optical scanning apparatus of claim 16, and wherein the light bar assembly rests on a support surface defined within the scanner body such that the slider-portion and the magnetic-track portions are not in direct contact with one another.
- 20 Claim 20. The optical scanning apparatus of claim 16, and further comprising a position detecting system to allow the detection of the position of the light bar assembly with respect to the scanner body.
- 25 Claim 21. The optical scanning apparatus of claim 20, and wherein the position detecting system comprises:
 - a linear encoding strip supported within the scanner body and mounted parallel to the magnet-track portion; and
 - a sensor supported by the light bar assembly and configured to detect the linear encoding strip.
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(Continued on next page.)

Claim 22. The optical scanning apparatus of claim 16, and wherein:

the light bar assembly is defined by a first end and a second end;

the magnet-track portion is a first magnet-track portion, the slider portion is a first slider portion, and the slider portion is supported proximate the first end of the light bar assembly;

the optical scanning apparatus further comprising:

a second magnet-track portion supported within the scanner body; and

a second slider portion supported proximate the second end of the light bar assembly and in contact with the second magnet track portion.

10

Claim 23. A method of moving a light bar assembly within a scanner body of an optical scanning apparatus comprising:

providing a stationary track within the scanner body;

providing a motive source supported by the light bar assembly; and

15 moving the light bar assembly along the stationary track using the motive source.

Claim 24. The method of claim 23, and wherein the light bar assembly is moved to a plurality of positions along the stationary track, the method further comprising

determining the position of the light bar assembly as it is moved along the stationary track.

20

Claim 25. The method of claim 23, and further comprising urging the light bar assembly against the stationary track while moving the light bar assembly along the stationary track.

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Claims 26-28 (canceled).

Claim 29. A scanner, comprising:

a light configured to move linearly within the scanner;

30 a motor in fixed association with the light source such that the light source and the motor are moved together.

Claim 30. The scanner of claim 29, further comprising a support member, the light and the motor fixedly attached to the support member, the support member movable within the scanner.

5 Claim 31. The scanner of claim 30, wherein the motor is configured to linearly move the support member within the scanner.

Claim 32. The scanner of claim 30, wherein the motor is connected to a drive wheel via a series of meshing gears, the drive wheel contacting a track within the scanner, the
10 drive wheel carried by the support member.

-- End of Claims Appendix --

9. Evidence Appendix:

None.

10. Related Proceedings Appendix:

None.